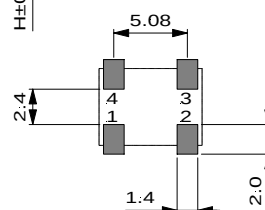
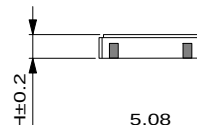
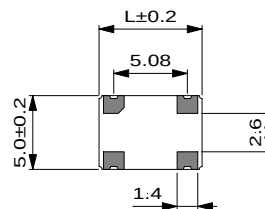


SURFACE MOUNT CLOCK OSCILLATOR

DFN S11-B/ BL/BD

KEY FEATURES
1.5 to 156 MHz
Standard ceramic package
HCMOS/TTL compatible output
APPLICATIONS
Clocking/Datacomms /PCMCIA

Function	DFN S11
NC/Enable	1
GND	2
Output	3
Vcc	4



L	7.0 mm
H	1.8 mm

PC board footprint

TYPE	DFN S11-B	DFN S11-BL	DFN S11-BD
Frequency Range	1.5 to 156 MHz	1.5 to 156 MHz	1.5 to 156 MHz

ELECTRICAL SPECIFICATIONS			
supply voltage	5 V ± 10 %	3.3 V ± 10 %	2.5 V ± 5 %
supply current (no load)	≤ 32 MHz ≤ 50 MHz ≤ 156 MHz	≤ 15 mA ≤ 30 mA ≤ 70 mA	≤ 10 mA ≤ 20 mA ≤ 35 mA
output load	≤ 25 MHz ≥ 25 MHz	HCMOS 50 pF or 10 TTL HCMOS 15 pF or 5 TTL	HCMOS 15 pF or 10 LSTTL
duty cycle @ 50 % level or 1.4 V	40/60...60/40 %	40/60...60/40	40/60...60/40
rise/fall times	10 to 90 % ≤ 5 ns	10 to 90 % ≤ 5 ns	10 to 90 % ≤ 5 ns
high/low levels	≥ 0.9*Vdd/ ≤ 0.1*Vdd	≥ 0.9*Vdd/ ≤ 0.1*Vdd	≥ 0.9*Vdd/ ≤ 0.1*Vdd
Phase jitter (fj > 1 kHz) @ 100 MHz	≤ 1 ps RMS	≤ 1 ps RMS	≤ 1 ps RMS
start up	≤ 10 ms @ 4.75 V	≤ 10 ms @ 3.00 V	≤ 10 ms @ 2.1 V

FREQUENCY STABILITY	stability [ppm] and temperature code						
types	temperature range	stability	code	stability	code	stability	code
all types	0 to 70°C	≤ ± 25	XB25	≤ ± 50	XB50	≤ ± 100	XB100
	-10 to 70°C	≤ ± 25	XI25	≤ ± 50	XI50	≤ ± 100	XI100
	-40 to 85°C	≤ ± 25	XE25	≤ ± 50	XE50	≤ ± 100	XE100
remarks	stability includes calibration at 25°C, temperature, ageing, Vcc and load changes 1 st yr.						

OPTIONS	CODE	
tight symmetry	R	45/55...55/45 %
tri-state output on pin 1	Z	high or open = enable, low = high Z

ORDERING CODE	type + option code + frequency + stability/temperature code
Example	DFN S11-BLRZ 32.000 MHz XB100

IMPORTANT NOTE	THIS PRODUCT IS DESIGNED FOR VOLUME APPLICATION ONLY
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